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Gas Journal

VOL. 308 — 113th YEAR — LONDON, OCTOBER 11, 1961 — No. 5119 — PRICE 1/9

CS_2 removal plant at Portslade by

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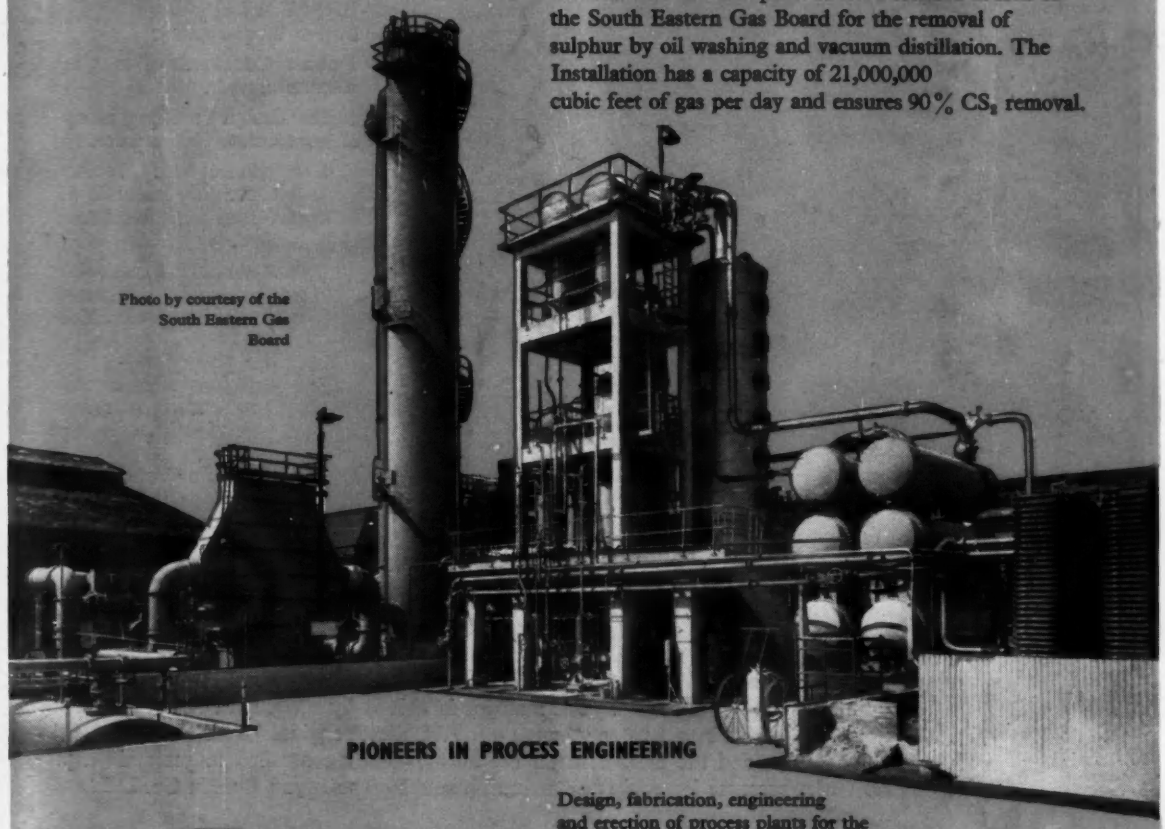

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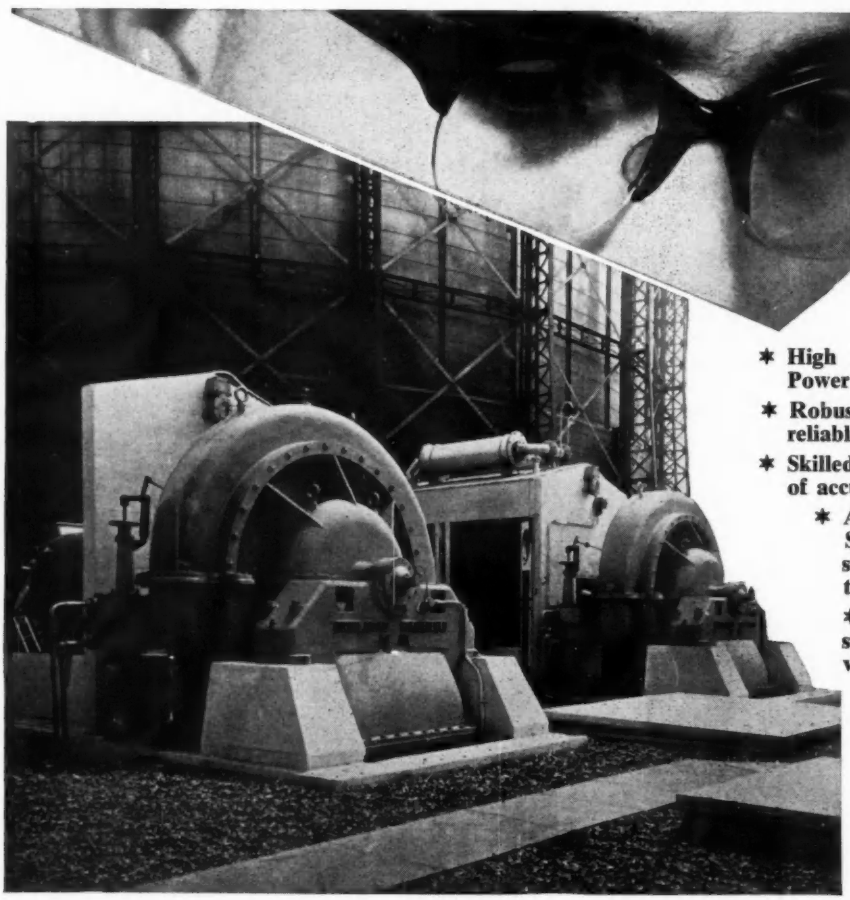

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Gas Journal

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Gas Journal

COKE OVENS • BY-PRODUCTS • CHEMICALS

An encouraging report

EXAMINATION of the twelfth annual reports of the Gas Council and the area boards for the year ended March 31, 1961, suggests that this is an industry which, despite the continuance of some major points of uncertainty concerning its future, is on the move and manœuvring itself into an improving competitive position. Financially things are much improved and there is plenty of evidence of progress on the commercial side. Only gas production lacks definition, its policy frozen by the agonising wait for the word from the Ministry. Until it is known that the Gas Council may proceed with its plans to import some 350 mill. therms of liquefied natural gas from Algeria, via a liquefaction plant near Oran, and finally in tankers, there must inevitably be a lack of definition about the Council's other gasmaking projects.

The most important thing is that from a deficit of £2,376,521 last year the gas industry has so improved matters that it has achieved a surplus of £2,039,124; this on a gross income of £401.9 mill., against £389.1 mill. the previous year. Eight area boards had surpluses and four deficits. Of the latter North Eastern, Eastern and South Eastern were in the red last year, and they have been joined by the Northern Board. Of particular note is the fact that the Scottish Board has this year made a profit in spite of the very difficult conditions prevailing north of the Border, and that the North Western Board has turned its £1,303,417 deficit last year into a surplus of £210,164—no mean achievement.

Thanks in part to an average temperature .7° lower than in 1959/60, sales of gas were up by 74 mill. therms, or 2.9%—a success to which all boards contributed except the Scottish in whose area gas sales fell during the year. A possibly significant point is that the proportion of total sales accounted for by domestic sales fell slightly, while both the industrial share and the commercial share rose. The total number of consumers again decreased.

There can be little doubt that the record sales of heating appliances of all kinds had a beneficial effect on the sales picture. For example, some 8,000 warm air units and 18,000 central heating appliances were installed during the year. However, it would be dangerous to think (as yet) of the heating load acting as a wholly balancing factor to the cooking load. Whereas sales of cookers fell by 207,875, space heaters were up by only 20,834. In other words, although the growth of space heating business is extremely gratifying, it is still some way from compensating for the continuing fall in cooker sales. It is true that the latter were affected by the reimposition of hire purchase restrictions in April, 1960, but this is not in itself sufficient explanation. It is pleasant to note that refrigerator and water heater sales rose, but sales of home laundry appliances suffered a serious setback.

On the industrial front the excellent improvement of recent years was maintained. Sales increased by 33 mill. therms (4.1%) and the annual number of therms per industrial consumer rose from 9,120 to 9,650.

Coke production fell by 2 mill. tons and breeze by 2.5 mill. tons. It is pointed out that coke sales have been affected by the mild weather of recent years, and although domestic sales continue to improve slowly, in commercial and industrial markets coke is losing ground. The report points out that British Standard cokes are being made by ten boards, although they are not yet on sale in all parts of the areas, and that the availability of gas industry named cokes is very much in excess of the requirements of the Clean Air Zones. Apart from briquetting pitch, demand for chemical products seems to have remained strong.

It will be noted that we have mentioned sales and revenue but not production. The reason is that we are living in a situation where the emphasis is on selling, and gas manufacture falls into its proper place; the tail has wagged the dog for too long. However, selling is of little value if there is nothing to sell. What of supply?

The total quantity of gas available was 2½% more than last year, but less was made at gasworks and more was purchased from outside sources. In fact 77.1% was manufactured—59% coal gas, 14.4% water gas and 3.7% oil gas and other gases. Coal used for gasmaking decreased, amounting to 22.0 mill. tons, compared with 22.3 mill. tons in the previous year, but the oil gas made, some 82 mill. therms, was much the same as in 1959/60. Water gas manufacture was 416 mill. therms, compared with 404 mill. therms in the previous year, and town gas from l.p.g. totalled 22.0 mill. therms, compared with 17.2 mill. terms. Gas purchased from coke ovens amounted to 509 mill. therms (477 mill. therms in 1959/60), and from oil refineries 117 mill. therms (81 mill. therms).

There is the picture in a nutshell and it should give considerable satisfaction. A full review of all the reports will appear on October 25.

The next ten years

IT was pleasant to see Mr. W. K. Hutchison, C.B.E., Deputy Chairman of the Gas Council, among the speakers at the International Conference of Heating and Ventilating Engineers and to note his timely and lucid examination of the technical advances likely in the next ten years. Much of what he said covered ground familiar to our readers, but we were impressed by certain of his comments.

For example, speaking of the established technical and economic feasibility of importing liquefied natural gas, Mr. Hutchison said that present plans based on the Sahara could easily be doubled or trebled by drawing on other supplies already proved elsewhere. 'Whether or not we receive authority to proceed now, I think it likely that natural gas will take an increasing share of the fuel market in the next ten years.'

Pointing out that natural gas is not interchangeable with town gas as we know it, and that at first it would be converted by a simple and inexpensive process into a gas of orthodox character, he said: 'For reasons of economy of distribution I foresee a trend to higher calorific value, and ultimately I would think that in some parts of the country at least the standard of gas supplied would be more like natural gas than the coal gas of the past.'

The gas industry has already developed some large centres of production based on oil products. In Mr. Hutchison's view, the feature of the next ten years is likely to be the surplus of light products from refineries. They are, as he pointed out, excellent raw materials for gas manufacture—conversion efficiency is high and the capital cost is one-fifth of that of carbonisation and the gas produced is non-toxic and sulphur-free. He foresaw a greatly increased use of these materials in the near future.

Commenting on some of the limitations imposed by the Lurgi process, he said that he could not see this process becoming predominant in future gas supply. In the long term he would expect more of a new process based on the reaction of hydrogen with coal which is being pursued in our own laboratories.

Mr. Hutchison added: 'Our production methods are in such a process of transition that our engineers could well take as their motto "If it works it's obsolete," but in our methods of transmitting energy over long distances and its distribution locally we already enjoy economic and practical advantages which cannot fail to be significant in our future.'

A domestic survey

GAS cookers are now owned by 71.5% of households. This is a slightly lower figure than that of 1958 but higher than that of 1956. The age group using the greatest percentage of gas cookers is that between 45 and 65, which tendency is also true in the percentages of gas fires, refrigerators, boilers and water heaters.

The survey providing these statistics, which has been carried out by *Woman*, also provides some interesting figures for the percentage of gas appliances among those purchased in the last five years.

From this table it is clear that the age group 16 to 34 is far and away the greatest buyer of gas cookers, boilers and water heaters.

Gas fires in the nation's households are now at a lower percentage than in 1958, as are gas boilers, but refrigerators occupy a larger, though still small, percentage, and water heaters have shown an increase.

Unfortunately the survey does not cover the growth in the number of gas central heating systems installed in th last year or two.

The decrease in the percentage of homes using ga cookers, fires and boilers is a depressing phenomenon, an the increase in refrigerators and water heaters does no greatly dispel that feeling.

The most encouraging facet of this report is almost certainly to be found in the purchases of the last five years, especially when they are related to the ages of the purchasers. The fact that the age group 16 to 34 bought 39% of gas cookers over that period, the next highest being 21%, and 10% of gas water heaters, the next highest being 6%, lends a slight glow to the picture.

It does show that in these two fields especially, the gas industry has made considerable progress in selling gas appliances to the younger market. (It is, we are told, in the younger market that a great deal of the money lies.)

Unfortunately, the sales of gas fires and gas refrigerators to this sector of the population do not show up quite so well. In order to capture this market, and it unquestionably must be captured to ensure the future of the domestic load, a considerable amount of work has still to be done. Certain aspects of these valuable statistics show, however, that it can be done.

A clean sweep

THE Clean Air Exhibition and Conference, held among the Kremlin-like onion-domes of the Brighton Pavilion, provided a well-furnished platform for the purveyors of fuels and appliances calculated to rid our lungs of smoke, soot and generally-accumulated grime.

The progress of smoke-free zones was shown in a sometimes bewildering array of maps adorned with red and pink circles. The National Society for Clean Air was making a concerted frontal attack on an assumed lack of awareness of this problem and of the progress that is being made.

Apart from the stands occupied by the Society, the most interesting, from the domestic angle, were those of the competing fuels. The industrial aspects of the question were fully accommodated by the displays of the individual firms supplying such equipment as filters and scrubbers.

The Gas Council had two stands, concentrating on the domestic uses of gas and coke respectively. The stands were necessarily fairly small owing to the comparatively limited space allotted to the exhibition. The concern of these two stands was to show what appliances and what types of coke are available.

While this approach is justified in that it allows the new appliances to sell themselves by their unquestionably attractive appearance, one wonders whether at an exhibition of this nature, this is enough.

The question that should be asked is whether someone in an area about to be un-polluted and who is considering the alternative smokeless fuels, is liable to be influenced entirely by the appearance of an individual appliance.

The efficacy of reams of information painted laboriously onto the stand is seriously to be doubted. Few people will stand and read several hundred words while being jostled by others endeavouring to do the same.

The electricity stand avoided this, yet achieved the same object, by making available, displayed attractively, a large quantity of leaflets. The importance of this lay in the fact that these leaflets sold, not an appliance, but electricity itself.

In such an exhibition, the fuel service has to be sold, and while a particular appliance may possess great appeal, it is not merely this appliance that the prospective customer wishes to buy, but an entire fuel service. The Gas Council might well consider borrowing an idea or two from the electricity stand on this account.

A decade of technical progress

IN his Presidential Address to the London and Southern Juniors, Mr. C. H. Townsend, Station Engineer at Wandsworth, recalled some of the changes that have taken place in the industry in the last ten years. That these have been momentous years technically for our industry no one will deny, for during the period since nationalisation a completely new outlook has come about, principally due to the rise in the price of coal to carbonising plants.

It may seem a little unfair that the special grades of coal needed for the production of coal gas should have been dealt with so much more harshly in this respect than the lower grades used for steam raising by our chief competitors, the electricity generating industry. It has had the effect, however, of bringing out all the ingenuity in the gas engineer. It has caused him to realise that other means of gasmaking must be looked for, and though hitherto untried, must be developed to reduce costs of production.

The development of the integrated gas grid, acknowledged as the cheapest means of transmitting energy, has shown how the difficulties facing the distribution engineer in the use of steel pipes, high pressure techniques and the central control of large quantities of gas can be surmounted.

It was during this period, too, that advances in the theory and practice of gas utilisation had been made in America and on the Continent as well as in Britain. Whereas in both the former, the problem has been how to painlessly adopt natural gas to existing appliances, in Britain it has been a matter of being certain that gas from all sources of production can be used equally efficiently in conventional town gas burners.

Mr. Townsend devotes a large proportion of his address to developments at the East Greenwich works, which are interesting in that they exemplify the advances that can be made even in carbonisation, when tackled on a large enough scale, and he shows how fortunate the South Eastern Gas Board has been that the original planning and layout of the works were on such a generous scale. The original site, planned for an output of 20 mill. cu.ft. a day to increase to 60 mill. cu.ft. by 1920, now has a potential output of some 107 mill. cu.ft. per day.

May we hope that the availability of new raw materials for gasmaking will have an equally vitalising effect on the industry in the next decade?

Do we need a Jinx?

THE American Gas Association has gained a new personality, following that ancient tradition-steeped American belief that nothing sells a can of beans so surely as a pretty face.

This particular pretty face is discovered behind the name Eugenia Falkenburg, generally known as 'Jinx.' Her function is to provide the gas industry with the glamour which, it is presumably believed, it requires in order to face its public with confidence.

Miss Falkenburg's qualifications for this vital position are that she has been a 'celebrated model, athlete, radio and movie star, T.V. reporter and housewife.' She is consequently the natural choice as hostess to the gas industry's television shows, and is clearly the 'ideal spokeswoman for gas.'

Her face is, it is understood, familiar to the American people, and one hopes that her new attachment to the gas industry will extend the popularity of both parties. She may well become a national figure and find herself greeted wherever she goes by the cry 'Hi Jinx.'

BRIEFLY . . .

Industrial supervisors

The Institute of Industrial Supervisors, in collaboration with a research team from the London School of Economics, recently prepared a form of questionnaire for circulation to all their members. It was designed to research into the various types of supervisory selection and training with which its members are familiar. After collation and analysis this will be submitted by the I.I.S. to the Minister of Labour's Committee of Enquiry into the Selection and Training of Supervisors.

Fuel efficiency supplement

A supplement dealing with fuel efficiency which appeared in the *Financial Times* last week carried an article entitled 'Smoke-free warmth with gas and coke appliances,' which set out to show that every gas or coke-fired installation is a contribution to smoke abatement, and to advise on how the area boards and the appliances makers keep abreast of developments. It is well that articles such as this appear from time to time in the lay Press as they do much to counter the bogey that gas is old-fashioned.

Gas fire boom

All too often our newspapers seem full of manufacturers' tales of woe, and among them the gas appliance makers play a leading part in the doleful chorus. How nice therefore to note the reference in the *Daily Mail* last week to booming gas fire sales. They quote Sidney Flavel and Cannon as having full order books, and point out that Britain bought 267,400 gas fires last year, compared with 244,500 in 1959 and as little as 124,400 in 1957. Since the end of March sales have continued to rise, 'which is a pleasant balance to gas cookers, now being hard-hit by their electric rivals.' Then came the news, published in the *Financial Times*, of the best-ever profits for William Sugg, whose business today is largely concerned with space heaters. It all goes to show how successfully the gas industry is developing its new and complementary 'basic' load.

Lectures on arbitration

Readers with a tendency towards arbitrariness or whose work brings them into contact with arbitration should be interested in some lectures being organised by the Institute of Arbitrators. They began yesterday with 'Arbitration Management' by Mr. J. R. W. Alexander, C.B.E., and continue with 'Dispute' by Mr. A. B. Waters, M.B.E., G.M., on October 17, 'Preliminary Proceedings' by Lord Meston on October 24, and 'Hearing and Award,' again by Mr. Alexander, on October 31. Of particular interest, however, is the Practice Arbitration on November 14, for which no tickets are required and to which all interested in the law and practice of arbitration are welcome. Meetings are held at 6 p.m. at the Royal Institute of British Architects, 66, Portland Place, London, W.1. Enquiries to the Institute of Arbitrators, 27, Regent Street, London, S.W.1.

From a paper presented to the Centenary meeting, Scottish Association of Gas Managers

An eye to the future

By M. R. BONE, B.Sc.(ECON.), F.S.S.
STATISTICIAN, SOUTH EASTERN GAS BOARD

THERE are current indications of a reversal of the unfavourable consumption trends which were a regular feature of the 1950's. Some of the possible ways of encouraging the upward trend by selling more gas to domestic consumers, put forward in this paper, are neither new nor revolutionary. They, however, are put forward with the aim of compelling us to ask ourselves again whether some of the methods at present being pursued are the right ones for the conditions of today, or whether there are other weapons at our disposal which might be effective in improving our relative position in the domestic fuel market in the immediate future.

The relative trends of domestic and non-domestic gas sales by the 12 area boards in the first ten full years since nationalisation are shown in Table 1. During this period total gas sales fluctuated very little from year to year.

TABLE 1

Year	*Gas sold (%) to:*	
	Domestic consumers	*Non-domestic consumers*
1950/51	56.6	43.3
1951/52	55.0	45.0
1952/53	54.1	45.9
1953/54	53.6	46.4
1954/55	52.3	47.7
1955/56	51.0	49.0
1956/57	51.0	49.0
1957/58	50.0	50.0
1958/59	50.2	49.8
1959/60	48.9	51.1

This was a decade when competitive fuels were more freely available than in the years directly preceding it, and the consequence was a steady decline in the proportion of gas sold to domestic consumers. They now buy a minority of all the gas sold in Britain.

In Scotland the direction of gas sales has followed a similar trend, as the figures in Table 2 for three of the years since vesting day indicate.

TABLE 2

Year	*Gas sold (mill. therms)*		*Domestic sales as % of total sales*
	Domestic	*Total*	
1950/51	137.3	204.9	67.0
1955/56	119.8	199.2	60.1
1959/60	103.6	183.4	56.5

In at least one respect, the situation here differs from that of the other northern boards and is more akin to that of the southern half of England, where the majority of gas is still sold to domestic consumers.

There have been signs in the past year that the unfavourable trend in this market may have been halted. Our urgent need now is to take steps to ensure that it is permanently reversed so that domestic sales can be restored to the position of a decade ago when they represented a much higher proportion of total sales.

Perhaps we would do well to remind ourselves of the extent to which gas is at present established in domestic premises. During 1959 a survey of 2,628 households took place in South-East England. The names of the people visited were selected from the electoral registers of 44 administrative areas. By this method all households were included and not just those using gas.

A similar survey on a smaller scale but containing the same questions aimed at getting information about the various purposes for which all fuels were used in each home was made in 1960. The findings of these two surveys were very similar in most respects and the figures quoted in Table 3 are based on them.

TABLE 3

Gas appliance	*% of All households with at least one*	*Estimated % of domestic gas sales through these appliances*
Cooker	73	63
Laundry appliance	22	3
Sink water heater	11	3
Bath water heater	8	2
Multipoint	8	7
Central/warm air heating	1	5
(Living) room heater	7	8
Refrigerator	6	3
Poker	18	3
Built-in ignition	8	1
Others	—	2
Total		100

The exact percentages would naturally vary a little between any two boards but I think we would agree that the broad pattern in any part of Britain at the moment will not differ substantially from that shown in Table 3.

The figures illustrate two fundamental points about the current usage of gas in domestic premises:

1. The contribution of cookers to our total domestic load is still outstanding. Each other load is minor by comparison.

2. We still have a very long way to go if the various appliances using gas for space heating are to be sold in sufficient numbers to make a really big impact on the domestic fuel market.

A good deal has been written and spoken about the various selling methods which can be used in making every effort to ensure that gas continues to be used for cooking in the majority of homes. Showroom staffs, district representatives, authorised dealers and teams of outdoor canvassers all have a part to play and so, too, have those

Board employees whose work is not connected with direct selling. The only point I wish to make here concerns one aspect of the incentive payments offered to these people, for example through commission schemes or on sales resulting from the use of prospect cards.

All sales of gas cookers are important but those which mean the displacement of an electric cooker are especially so. Some schemes recognise no difference in the payments made in these two sets of circumstances and where there is a difference it often seems too small.

A large difference would seem to be justified because to substitute a gas cooker for an electric cooker means not only the sale of a modern appliance and a good additional load immediately, but also the provision of an appliance which can be the foundation for our subsequent load-building activities. These depend primarily on the security of the cooker load.

How secure, then, is this base load? There were 2,163 gas consumers included in the large survey made in 1959. The data in Table 4 give the distribution of these consumers according to the numbers of gas appliances they use. The percentages shown in the final column were closely confirmed by the smaller survey in 1960.

TABLE 4

Gas appliances in use	*No. of domestic consumers*	*% of Total*
0	15	1
1	588	27
2	861	40
3	416	19
4	180	8
5	64	3
6	22	1
7 and over	17	1
Total	2,163	100

While the distribution itself is of considerable interest, its value in the present context is in pointing to the need for concern that over a quarter of our consumers only use one appliance. We found that 496 of the 588 consumers in this group had a gas cooker. Some 23% of our existing consumers are therefore 'cooker only' households and hence their vulnerability to the persistent all-out efforts being made by our competitors to capture this market and so deprive us not only of the sale of an appliance but also of a consumer—probably for ever. Who would question that these 'cooker only' consumers are very much less securely ours than are people who use a minimum of two gas appliances? It may be that knowledge of these figures will impart an even greater note of urgency to the drive for a big increase in cooker sales through the various channels already mentioned.

The only answer

Direct efforts to sell more cookers may well be the only answer to the short-term problem of retaining a majority share of that particular market. The indirect method of making sure that every consumer uses at least two gas appliances and thereby gets into the habit of using reasonable quantities of gas in the home is complementary to the direct method and may even be more effective in the long run.

Perhaps the most important task facing us, then, is one of reducing the number of 'single appliance' consumers—not by losing them altogether but by persuading them to become 'multiple appliance' consumers? The practical difficulty is that at any particular time we can never be sure which of our consumers belong to the former group. All we know is that about a quarter of the total do and that periodically most of them buy a cooker.

It may therefore be that we must come to regard the moment when a gas cooker is sold as one of tremendous commercial significance. Cookers have an average life of approximately 18 years, and we are thus presented with an opportunity to ensure that such purchasers become of more permanent value to us than the slightly below average user of gas which ownership of a cooker frequently implies.

It would seem that if we wish to capitalise on the success of selling a cooker, we must be prepared to use financial inducements much more extensively than hitherto. The public have been schooled in recent years to price reductions and 'gifts' in various forms on a very wide range of products. I feel that we should not be afraid of being a little more adventurous, though not necessarily to the extent of giving away more money than at present in total, in applying these inducements with the object of expanding our sales.

Offering inducements

There is another reason, too, for believing that the moment of a cooker sale may be the ideal time for inducements to be offered to the consumer. Quite a number of Boards have so designed their two-part tariffs that they are not attractive to a 'cooker only' consumer but they will be to anybody using another major appliance as well as a cooker. We know that consumers in South-East England who have adopted a two-part tariff increase their consumption not only in the first year afterwards (which is rather to be expected since the transfer is often associated with the purchase of a load-building appliance) but also yet again in the second year.

It appears vital to use financial inducements in getting people to buy a second major appliance and so bring them to the point where the adoption of a two-part tariff is beneficial to them. We can then leave the tariff to do some promotional work on our behalf—unobtrusively and regularly.

With these thoughts in mind, I now indicate three ways in which these inducements might with advantage be applied to our present situation.

We might offer a discount of, say, 5% on the total value of a simultaneous order for more than one appliance, but only those appliances with a minimum cash price of, say, £10 would be included in the calculation. While accepting that many people cannot consider buying more than one appliance at a time, I have a feeling that the present number could be raised through the introduction of such a scheme. From all the enquiry cards leading to firm orders for appliances during the latter half of 1960 in a large district of South London bordering on the Thames we selected a sample of 520. Only 4% (22) of the cards contained orders for more than one appliance and 16 of these 22 included an order for a cooker.

The three examples which follow are based on an offer of 5% discount:

Example 1. A consumer visits a showroom with the intention of buying a cooker and chooses one at a cash price of £36 15s. She notices that the room heaters on display look most attractive and mentions casually that she must get one soon. This desire stems also from disappointment with coal because of its variable quality and because of the extra dust which gets to every corner of the room and soon begins to make new and often expensive decorations look shabby.

From further conversation it is clear that there is one which takes her fancy. At a cash price of £12 1s. 5d. it might be a bit beyond her pocket but the prospect of a discount of £2 8s. 10d. by placing the order now makes her think again and results in a decision to spend

£9 12s. 7d. and acquire an efficient appliance at a bargain price.

Example 2. A husband aged about 50 has just been appointed to a senior position in his Company and wishes to use the additional income in the early stages to modernise his home—a task which has been referred over a period of some years because of the heavy expenses involved in bringing up two children. His wife naturally wants a new cooker and has already decided which one she would like. Having seen an attractive room heater in their neighbour's lounge, they were duly impressed and have decided to have one for themselves. The prices of these two appliances total £61 2s. 4d.

When the district representative visits the home about these appliances, he senses that there is a willingness to spend money and he is already well aware that the houses in this road were built between the wars when it was the normal practice there for a supply of gas to be available at every hearth.

It appears that the main bedroom is only heated in spells of really cold weather when a portable electric fire is taken into the room. The possibility of having a fixed room heater there and so save the fetching and carrying had never been taken seriously before as the consumer had always thought such appliances were dear.

Verbal persuasion by the representative might not be adequate but if he can say that by ordering a suitable appliance now the consumer would get it for £7 12s. 8d. instead of for the cash price of £11 5s. his argument would have added force and success would more often crown his efforts.

Example 3. An existing consumer is about to move into another house. From our point of view, this can be a time of danger or of opportunity depending upon our alertness. The man certainly looks upon this as a time for some major changes. As soon as he sees the solid fuel boiler in the corner of the kitchen, he realises that it is very ancient and must be replaced. He doesn't want to attend to a boiler night and morning and therefore the choice is between gas and oil. The storage problems associated with the latter help him to decide in favour of gas.

Advice to consumer

When the district representative calls, his advice to the consumer is that there is a suitable boiler on the market which would satisfy his requirements for a price of £51. He also notices that an electric cooker bought about 15 years ago has been left in the kitchen by the former occupier. The incoming tenant intends to use this for a year or two and then buy a modern electric cooker.

The representative can always point to the unique opportunity of streamlining the appearance of the kitchen by buying a new cooker to go with the new boiler. An order placed immediately for a certain cooker would bring the total price of the two appliances to £83 7s. 3d. and would enable the consumer to get an excellent cooker for an additional payment of only £32 7s. 3d., *i.e.* more than £4 below its cash price.

Such a discount on multiple orders for major appliances would bring other advantages to a board besides the opportunity to promote appliance sales. All the appliances could be delivered together and they could be fixed in one visit. These are important factors from our point of view and from the consumer's because the growing tendency for wives to go out to work each day is gradually making the problem of gaining access to houses more difficult.

The cash discount together with the organisation of delivery and fixing in this manner should leave the consumer with a good impression of the Board's service and this is our best guarantee that we shall continue to receive appliance orders in the future.

It is not suggested that 5% is necessarily the ideal rate of discount for a scheme such as this. There is clearly an advantage to a board in selling a marginal appliance to somebody who has already made up his mind to buy at least one just as it is recognised to be cheaper to supply a marginal therm of gas to a consumer who already uses a reasonable quantity. The two-part principle can be applied to the sale of durable goods as well to to fuel.

If we accept that many people simply cannot afford to buy more than one appliance at a time even when hire purchase terms are not severe, another method of looking upon the sale of a cooker as a springboard for further sales rather than as an end in itself can be considered. A voucher could be given to every purchaser of a new cooker entitling them for a limited period of, say, 12 months or perhaps even two years to:

1. Free fixing to a nearby point of certain load-building appliances, *e.g.* refrigerators and room heaters. (If free fixing for any of these appliances is being offered at the time, it would be necessary to offer an equivalent payment to the consumer.)
2. A deduction of up to 30s. from the fixing charge of any other appliance fixed during the period.
3. Buy a poker at half the cash price.

Three reasons

There are at least three reasons for thinking that such a scheme would be attractive:

1. Offers of free fixing seem to be made rather haphazardly at present although it is acknowledged that they are of value as a temporary measure to increase sales when, for example, there is a surplus of one type of appliance in the stores or a shortage of work for fitters. To fix room heaters free in the autumn, for example, would seem to be a mistake. Those who buy them have generally waited until there are signs of the approach of winter before placing their orders. The result is to create acute delivery and fixing problems. For causing us these difficulties, we give the consumer a present of approximately 30s. A wiser use of free fixing would seem to be as a means of encouraging out-of-season sales of appliances or for the purpose of helping to make the gas load more secure by getting appliance sales which might not otherwise be obtained.
2. Consumers already using a cooker might think again about having a water heater, particularly at the sink, when they know that the fixing charge will be reduced. There are so many old houses where the use of gas for water heating would be a boon and one can only hazard the guess that the complications and hence the cost of fixing the appliance may well be one of the deterrents to our progress in this market.
3. About 11% of all households in South-East England use coke and yet have no means of gas ignition. The sale of a poker, provided it is used, brings an increased load with a minimum of effort on our part. It is difficult to agree with the 'give pokers away' school since their method would not ensure that we always get an additional load. There is much to be said, however, in favour of a sufficiently large price reduction to encourage the use of pokers by those who would benefit from them and, incidentally, help to remove one of the main causes of dissatisfaction voiced by coke consumers.

We have seen how vital it is that the cooker should not be the only gas appliance in any home. This is rarely taken into account in constructing the scale of payments to be made through prospect schemes and as incentives to salesmen. There may be some practical difficulties in the way of doing this, but I think there is a strong case for making an extra payment to anybody selling an additional appliance which becomes the second one in that home, irrespective of the type of appliance sold.

There are no doubt many variations on these themes for making a wider but more selective use of financial inducements aimed at helping us to retain a substantial share of the cooking load for a very long time. We need that load not just for its own sake but to enable us to make the most of our golden opportunity to acquire a second base load.

Second base load

Presumably we all accept that this second base load must be space heating with a special emphasis on room heating through independent appliances. Our aim to have a minimum of two major gas appliances in every home could well be phrased more precisely by saying that these two should preferably be a room heater in a main living room and a cooker.

Considerable progress has been made in developing the market for room heaters, but time is running short and I feel that we ought to be making more rapid strides in this direction. Who would doubt that the market is there for the taking? Criticism of the quality of solid fuel is strong and is often well-founded. The mood of the age is one which acknowledges the convenience and simplicity of using refined fuels.

We now have very efficient appliances within a wide price range to suit every pocket. People who have already bought and used them have, with few exceptions, expressed favourable opinions on the standard of performance and the reasonable running costs.

Our selling staffs are confident that these appliances will give good service. With advantages such as these, I doubt whether many other business organisations would feel that the rate of progress in entering this market is satisfactory. Why are we not achieving a higher rate of selling?

It is both interesting and instructive to look at the following figures showing the proportion of hire purchase to total sales of all space heaters in South-east England for each of the past five years during which time total sales have increased annually:

1956/57 . .	22%
1957/58 . .	31%
1958/59 . .	37%
1959/60 . .	43%
1960/61 . .	41%

If these figures had been confined solely to room heaters, I understand that the trend would have been very similar but that an absolute 5% or thereabouts could be added to each figure. A nice point of commercial judgment arises here depending upon how one interprets the figures. They could very well mean these two things, among others:

1. That a steadily increasing proportion of the people who buy room heaters have moderate incomes.

2. That as in the case of other durable goods, there is a gradual hardening of the attitude of the public against outright full payment and in favour of instalments.

If this is broadly a correct assessment of the present situation, it would appear that this may be the opportune moment to introduce a policy of offering room heaters to the public on rental. This was the main method, either directly or through prepayment supplements, used to develop the market for gas cookers in their early days. The television industry has used it with outstanding success in recent years to develop the market for a new product once the initial phase of buying had passed. I believe that it might pay us to do the same, despite the likely response from our competitors, provided that we tackle the job whole-heartedly.

Just as the hiring of cookers in the past was often linked with a prepayment supplement tariff, I think we could modernise that very successful method by combining the hiring of one room heater with the requirement that the consumer must adopt a two-part tariff if he has not already done so. This should mean that the majority of room heaters issued on hire would be used fairly often and would generally be fixed in living rooms. The hiring charge could be added to the quarterly standing charge of the tariff and we would in effect get a hiring agreement for a minimum period of 15 months.

The numbers of consumers who would take advantage of such an opportunity would almost certainly be large enough to justify the production of two or three standard room heaters varying in shape and size for, say, £13.

To compute an approximate hiring charge it is necessary to add to this basic figure amounts to cover interest, the standard fixing charge and annual servicing visits. At the time of writing, these additional charges would be about £7 8s. 6d. assuming that the appliance has a five-year life. On this basis the hiring charge would be £1 0s. 5d. per quarter, *i.e.* just over 1s. 6d. per week. Such a scheme would bring these advantages:

1. Experience has taught us that consumers do not take as long as 15 months to appreciate a room heater and to realise how superior it is to their previous method of heating. Sooner or later they will be glad to consider buying room heaters, probably on hire purchase, for other rooms.

2. The Board would welcome the opportunity to service the appliance annually (preferably just before the heating season) and so ensure that it gives first-class service.

3. Having recovered its money in as short a period as five years, the Board can then feel free to remove any appliance which has become the worse for wear or appears unsightly and replace it by a new one which would be an even better advertisement for the gas industry.

We want the room heating load and we want it quickly. This may well be the best way of getting it. The opportunity of having two base loads, each helping to support the other, is on the horizon. It is too good to miss.

Personal recommendation

The remainder of this paper is devoted to three matters which have some influence on sales promotion in general and also more particularly on the two base loads which have so far occupied our attention. The first of these concerns personal recommendation.

Quite a number of our market surveys involve visiting people who have recently bought a new gas appliance. These surveys nearly always include a question which invites the purchaser to say what prompted her to buy that particular appliance. Personal recommendation is usually high on the list of answers to such a question and we have a strong suspicion that it would frequently head the list if the whole truth could be established.

Frequently the recommendation is not a broad one such as 'you ought to use gas for space heating' but a very specific one on the lines of 'you really ought to get a —— room heater, they're excellent'. It may very well be that personal recommendation is a more powerful factor in the room heating market than in many others, mainly because

husbands and wives, admire them when visiting friends who are glad to speak well of the appliance.

One wonders how this power of personal recommendation can be used even more extensively to stimulate the market. The initiative in this case may well lie with the manufacturers rather than the boards, for the former are even more concerned with the success of a particular model. Have they considered offering a payment of, say, £1 to the buyer of an appliance for each successive sale of a similar model which she introduces within a period of, say, two years?

The boards would no doubt play their part by confirming that appliances which are to be the subject of payment have been fixed and notifying the manufacturers of this.

Manufacturers might appreciate an opportunity of this kind to forge direct links with the consumers and so propagate their own names and those of the appliance brands on the market at any one time. They would nevertheless have to face the fact that this would be a two-edged sword because there might be occasions when these consumers would make it known that the failure of a manufacturer to make a recommended appliance available quickly had caused them to lose a payment.

Elderly group increases

Although there may be many better methods of harnessing this power of personal recommendation, my hope is that the points I have made will have caused us to think about it again with a view to putting forward some alternative ideas.

Everybody knows that the elderly are increasing in number year by year. The estimated increase in the present decade is shown in Table 5.

TABLE 5

For every 1,000 *people in Great Britain*

Age in years	*At end of* 1959	*At end of* 1969
55-64	113	128
65 and over	117	122

The age group of 55-64 years was included not because these people are regarded as old, but as an indication of how the 65 and over age group will grow even faster in numerical importance in the next decade than is happening now.

Recognition of the social problems arising from the presence of the elderly in our midst and as a steadily rising proportion of our total population has led to many forms of action in more recent years to cater for the needs of some of them.

While accepting that many old folk today are extremely poor, it seems that this proportion should decline steadily in the future for these reasons:

1. Most of them will have been fully employed at least since they were 40 and are therefore likely to have had an opportunity to put something away to meet the basic material needs of old age.

2. There will be a gradual raising of the level of State pensions arising from the recent introduction of the graduated pension scheme.

3. The continual growth in the number of companies operating private superannuation schemes.

With the real possibility of many years of life still to come and stronger financial support than was enjoyed by their predecessors, the elderly of the future will most probably be happy to spend a little more on home comforts and especially on labour-saving appliances.

Here is an opportunity which the gas industry should not fail to grasp. There are already signs of the existence of this potential market. It was established about a year ago in a market survey by the North Thames Gas Board that 13% of the housewives/purchasers of room heaters were over the age of 60.

We are already obliged to keep a watchful eye on the elderly through 'Safety in the Home' calls made by employees. There appears to be scope here for looking upon these visits not always as a duty but sometimes as a call on a potential buyer of an appliance.

It seems a pity that some of these visits have to be made by comparatively young men whose energies could well be used more profitably in markets where competition is keen.

Many men are now prepared to work on a part-time basis for some years after they reached the age of 65. Some of our representatives might feel this way and be pleased to continue their active association with the industry. If that is so, their part-time service could well be used to meet the needs of our elderly consumers. The pension of the representative could be supplemented in two ways:

1. By paying him on a basis of so much per 'Safety in the Home' call subject to a maximum number of calls to be made by any representative in a week.

2. By using the prospect scheme, as Board pensioners generally can, to encourage the sale of appliances—especially of room heaters where the elderly are still struggling to carry solid fuel around the house.

A scheme like this would be beneficial to the aged as well as to the Board. The old folk are more likely to take heed of advice offered by a man who is approximately of their own age than from a younger man.

Since they and our representative may have lived and worked in the same district for a number of years, it is quite possible that they will already be known to each other and this would be a good basis for the retired representative to fulfil his two-fold task.

Window displays

Once during each of the months from May to October inclusive in 1960 our interviewers made a note of the appliances displayed in the windows of 69 of the gas showrooms in South-East England. The word 'window' should not be taken too literally.

Any appliance whose price ticket could be read without difficulty by a person standing close to the windows or doors was recorded for the purpose of this survey. The distribution of window space according to the numbers of appliances displayed during this time is shown in Table 6.

TABLE 6

Appliances	*Nos. displayed*	*% of total*
Cookers	2,958	28
Room heaters	2,136	21
Laundry appliances	1,334	13
Refrigerators	1,313	13
Water heaters	1,290	12
Portable fires/radiators	947	9
Central boilers	227	2
Coke grates	124	1
Other appliances	138	1
Total	10,467	100

It is recognised that seasonal factors play some part in determining the types of appliances to be placed in the window. Within this period, however, there was a publicity campaign for water heaters and a free fixing offer for room heaters as well as the usual effort made in the summer months to sell refrigerators.

It is an interesting exercise to compare the right-hand column of Table 6 with that of Table 3, which shows the current distribution of our domestic load, and also with our

individual views of how we envisage the development of our domestic business in the next few years. After doing this, most of us would at least agree with these general conclusions:

1: Cookers and room heaters ought to occupy more than about half of our showroom window space, though not necessarily of the total display area in the showroom.

2. Laundry appliances should not be allowed as much as 13% of the window space nor do portable fires/radiators bring sufficient load to justify a 9% share of the appliances on view.

3. Central boilers, on the other hand, should be represented by more than 2% of the appliances in our windows when we bear in mind their cash value and the potential load from them.

Showrooms are among our major assets. Even if some of them could do with a face-lift, we can still ensure that wise use is made of the display space to the extent of supporting our selling staffs in their twin objectives of selling cookers and room heaters as quickly as possible.

DISCUSSION

Mr. A. McFadyen, Glasgow, said that everyone was agreed that the 'cooker only' customer was something they had to do something about. Far too large a proportion of their customers were in that category. At the same time, it was alarming to note the drop in sales of cookers in some places—in the Glasgow Division of the Scottish Gas Board, for instance, from 58,000 to 17,000 in the last financial year.

How were they to arrest the downward trend in cooker sales, and how were they to increase the quantity of gas sold to domestic customers? There must be increased efforts to extend the range of appliances used in the home.

In this respect it was disquieting that cookers represented 63% of the gas sold to domestic customers. Smoke control areas, he added, had been developed in the larger cities and these offered an opportunity to redress some of the factors that appeared to be ill-balanced.

It was not very difficult to convince householders that they should use gas for heating a room but difficulties were encountered in convincing them that the industry had an easy installation for heating water.

Mr. K. B. Triggs, Edinburgh, said: 'I would like to congratulate Mr. Bone on his "down to earth" paper in which he has indicated some of the ways of selling more gas to domestic customers. I find myself in complete agreement with much he has said and written and, particularly, with his opinion that the exceptional results which we seek will only come by the more diligent practice of the ordinary common sense activities and right procedures which are part and parcel of our everyday work.

'For example, he refers in his paper to changes of tenancy and says, quite rightly in my opinion, that the move into another house is a time of danger or opportunity, depending on how notices of removal are dealt with. There is no doubt that when removal notices are received, the sales function should be vitally involved and such notifications regarded as real selling opportunities.

'The author lays stress on the use of financial inducements, either in cash or credit form, in order to obtain the second sale. We have a scheme in operation whereby customers, under certain conditions, are granted a discount on the total value of the several appliances purchased. This has not been very successful but it might well pay to offer a "package" of two appliances consisting of a space heater for the main living room and a hot water circulator to replace the customary back-boiler.

'I would like to ask the author whether he has had any experience of the operation of such discount schemes and, if so, to what extent they have been successful.

'No one could agree with the author more than myself that we need the room heating load and quickly, but I question the wisdom of simple hiring room heaters. To begin a rental scheme for room heaters would, I am sure, bring strong retaliatory measures from our competitors, who have a far greater number of retail outlets than we ourselves possess.

'With the lower capital and installation costs of electric heaters would go lower rentals, and for very many people this would be the deciding factor. The renting of room heaters would certainly open up the space heating market, but I wonder whether our share of the potential would, in fact, be as high as it ought to be.

'I am in complete agreement with Mr. Bone's claim that personal recommendation is the most powerful factor in convincing prospects of the truth of the claims we make for radiant-convector gas room heaters and that it is in this way that most of our sales are made. How are we to make use of this?

'The author suggests that the manufacturers might reasonably be expected to do something to assist in promoting the sales of their own appliances by paying commissions to users of those appliances who introduce sales of similar appliances to their friends.

'Mr. Bone has a good point here but would such a scheme mean an increase in the prices of appliances? I am sure it would.'

Mr. Bone said that the question has been asked: 'What mixture of appliances could best be offered?' He thought there was a very great danger there in looking for a clear-cut solution. There was no standard answer to a standard problem. He felt that they should aim at getting every householder to use a minimum of two major appliances, by which time they could generally adopt a two-part tariff, and it would be easier to go on from there.

In this, as in other fields, success bred success. Regarding selling of cookers to younger housewives, particularly those in the 21-35 age group, he said he did not think that decisions were taken hastily on this matter. He thought that young married women would be very strongly influenced by the cooking appliances that mother used when the new bride was in her teens.

The major step here was to do everything possible to shift out the old black cookers, the influence of which would thus gradually diminish.

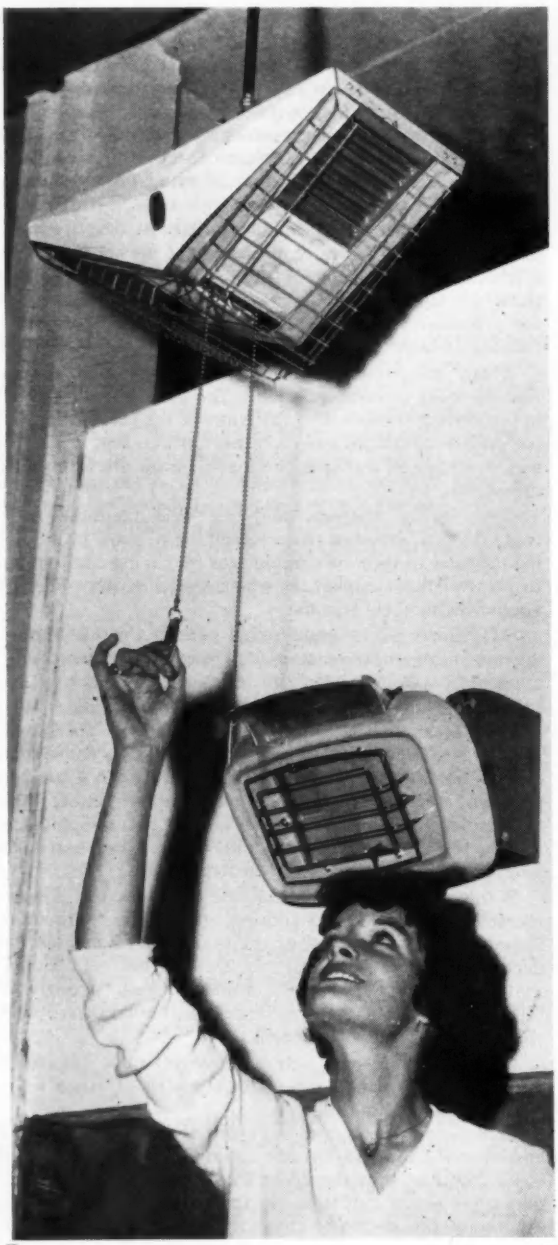
Young married couples were often out at work all day and even if they had already committed themselves to an electric cooker, they should be the same people who would find a gas heater valuable. In that case the hope was that eventually the goodwill engendered by the space heater would win back the cooker load.

In the matter of tariffs, he did not think there was an ideal structure. After all, they were very much limited by what they could persuade the public to accept.

On another point he commented that if a customer was determined to spend, perhaps, £30 on one appliance, it might suit the industry better to sell her two appliances at £15 each and possibly increase the load.

Changes of tenancy presented difficult problems of their own. Regarding removal of meters, his Board never removed a meter without a representative calling, and he imagined that would be standard practice in the industry.

On central heating installations, he said it did not seem to matter very much whether customers had a cooker or not. Approximately 10% of the central heating boilers sold had gone into houses which did not use gas for cooking.



Shown for the first time at the First International Heating, Ventilating and Air Conditioning Exhibition, this neatly designed overhead gas heater by Parkinson Cowan Industrial Products Ltd. has been specially produced to bridge the gap between the domestic and industrial heaters on the market. Known as the Parkinson Schwank Merlin, the heater is intended for installation in offices, halls, schools and similar buildings.

Gas was prominent at Hevac exhibition

THE increasingly important heating and ventilating industry was able, for the first time, to display its varied products at a specialised exhibition at Olympia from September 26 to October 6.

Hitherto, the industry has assumed an ancillary role at other exhibitions, which has tended to limit the scope of exhibits and to give visitors a false impression of the industry's size and importance.

Organised by Industrial Exhibitions Ltd., and sponsored by the Institution of Heating and Ventilating Engineers, the impressive display revealed the wide range of equipment now available for heating, ventilating and air conditioning in domestic, commercial and industrial premises.

The exhibition also underlined the important part which gas is playing in the development of modern heating techniques and emphasised the valuable work being done by many firms associated in the manufacture of equipment for the use and control of gas.

Comprehensive display

As would be expected, the focal point of gas interest was the impressive Gas Council stand, where a comprehensive display of appliances, supported by diagrams and photographs, demonstrated the latest techniques of using gas for heating in the home, commerce and industry.

Particularly interesting was the display of the SE-Duct system, which, though now well-known to gas industry specialists, was probably being introduced for the first time to many visitors to the exhibition.

Visitors could not fail to be impressed by the SE-Duct system, which enables architects to include in multi-storey blocks of flats various types of high-efficiency gas appliances with room-sealed combustion chambers, such as water heaters, space heaters and drying cabinets, without the limitation of siting them only on outer walls.

Examples of applications of the SE-Duct system were shown by photographs, including flats at Harlow, Finsbury, Kilburn and South Shields (the latest application).

Gas industry research is bringing good results, such as the work on the performance of flues at the Fulham laboratories of Watson House and the laboratories of the South Eastern Gas Board in the Old Kent Road, London.

In addition to the development of the SE-Duct system, other results of flue research include the branched flue system and the X block flue. Examples of these 'shared'

flues were illustrated on the Council's stand, such as installations in Kirkby, Lancashire, and West Ham.

It is not always realised how rapidly gas is advancing in the heating field. Installations of gas central heating and warmed-air heating units have doubled since last year and new 'cheap gas' tariffs are bringing central heating to an ever-widening market. It is reported that during 1959-60, some 10,000 gas central heating installations and over 3,000 warmed-air heating units were supplied.

Many of the appliances by well-known manufacturers were displayed on the Gas Council's stand, including some firms which were not showing elsewhere in the exhibition. In the central heating field, for instance, there were the Ideal Boilers & Radiators Ltd. Kingston No. 2 S.B. boiler and the Viceroy 2 boiler by Hattersley Brothers.

Air heaters

Among the air heaters on show was the Halcyon F/S.D/60 (William Sugg & Co. Ltd.). Other exhibits included the Ascot Gas Water Heaters Ltd. 727 M/P water heater and the Dri-Flue drying cabinet (Clifford Products Ltd).

Another section of the stand was devoted to gas-fired incinerators, the equipment on display including incinerators by Radiant Heating Ltd. (2 Caloric), Victor Products (Victor 32) and William Sugg & Co. Ltd. (2705 wall pattern).

Elsewhere in the exhibition, the Gas Council had mounted another stand, devoted to the coke side of the industry. Here the exhibits included a number of large-scale and domestic coke-fired central heating boilers, typical of which was the Monarch III boiler (Glow-worm Boilers Ltd.).

Heating engineers interested in gas as a source of heat for domestic central heating installations found much to interest them at the exhibition, including the two gas-fired central heating appliances shown by Radiation Parkray Ltd. These were the G.105/23 and G.604/1 models.

Of these, the G.105 is a space-heating unit, using the fanned warm-air method, which will provide full heating for the living rooms and background heating for the bedrooms in the two-to-three bedroomed house.

Flexibility and economy of operation is provided through the thermostatic control and inlet registers to each room, which can be opened as required to provide selective room heating.

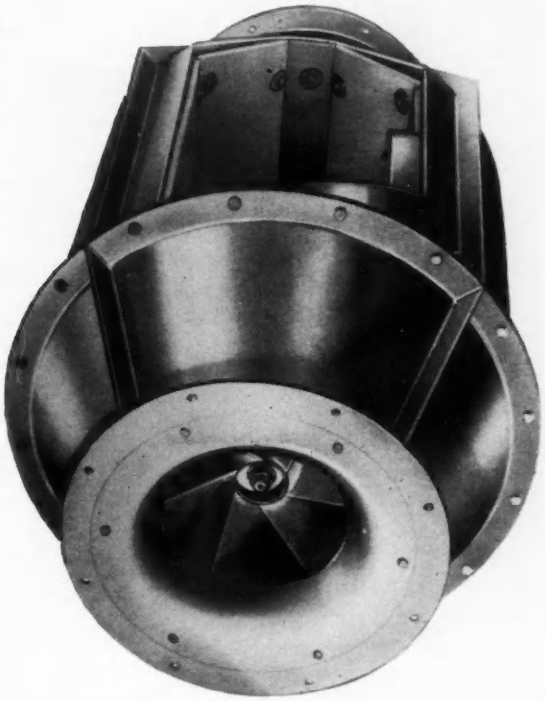
It is claimed that in a house of 1,000 sq.ft. area, insulated to Egerton standard, the G.105 will provide background warmth throughout the house at all times and full heating to 67° F. in the living area for eight hours a day for an annual consumption of 400 therms of gas.

For small-pipe heating

Designed specifically for small-pipe central heating systems, the Parkray G.604/1 has an output of 45,000 B.t.u. per hour and will heat up to 250 sq.ft. of radiator surface, giving full central heating in the average three-to-four bedroomed house.

The unit can be mounted on any convenient wall where connection to an efficient flue is feasible. A room thermostat provides easy control and economy of operation and automatic timing can be incorporated if desired.

Where wall radiators are to be installed, one of the main problems facing the heating engineer is to select a radiator which is both efficient from the practical point of view and attractive enough in appearance to satisfy the aesthetic needs of the modern housewife.



New AX-CENT compound flow bifurcated fan which has just been introduced by Keith Blackman Ltd. and which combines the advantages of the axial and centrifugal types.

The Nuvello range, shown by Steel Radiators Ltd., offers a radiator of unusually attractive appearance while, in addition, it is stated that they provide 50% more surface heating area per foot run than a panel radiator of similar height.

Radiators are made in a range of standard sizes but can be tailored to meet individual requirements.

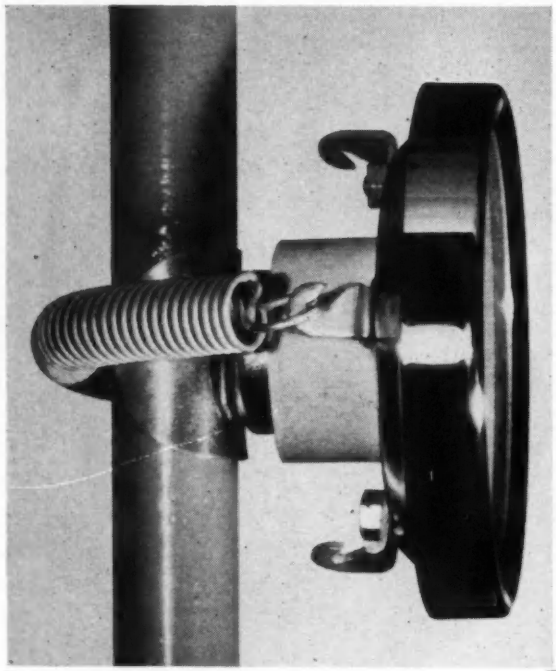
Thomas Potterton Ltd. have long been established in the gas-fired domestic heating field and their exhibits included the 35 GS warm-air circulator and examples of the well-known Diplomat range.

The 35 GS is a fully automatic gas-fired air heating furnace, of the horizontal type, with return air connection facing vertically upwards from the top of the unit and the warmed-air discharge facing horizontally from one end.

This unit, which was also shown on the Gas Council stand, is of robust construction, is fitted with Bray-type jet burners giving silent operation with all safety devices and thermostatic controls as standard.

Diplomat gas-fired boilers for contral heating and hot water are widely used and the range now extends from the Diplomat 31, with an output of 31,000 B.t.u. per hour, for the small house with three or four radiators and hot water supply, to the Diplomat 100 (100,000 B.t.u. per hour) for establishments requiring hot water and 13 or 14 radiators.

A recent addition to the automatic control equipment available with these boilers is the Potterton programming switch which, on a small bore unit, has five pre-set posi-



Surface temperature can be measured by this thermometer which clips round a pipe, the temperature of which is to be recorded. The manufacturers are British Rototherm Co. Ltd.

tions covering a range of variations in the heating and hot water requirements of the household.

Aga gas-fired domestic boilers are also well-known throughout the heating industry and among the equipment on show on the stand of the Aga Heating Division of Allied Ironfounders Ltd. was the SB 45, a gas-fired boiler of 45,000 B.t.u. per hour capacity, with built-in pump for operating small-bore central heating systems.

Heating equipment for the commercial and industrial concern was featured on a number of stands, including that of Parkinson Cowan Industrial Products Ltd., who were showing their new radiant air heater, gas-fired, which has been specially designed to bridge the gap between the domestic and large-scale industrial user.

Attractive design

Known as the Parkinson Schwank Merlin, the new heater has been attractively designed and strongly constructed from aluminised steel and finished in heat resistant vitreous enamel.

Gas consumption of the Merlin is only one-eighth of a therm per hour, but the output of 13,000 B.t.u. per hour is sufficient to heat approximately 2,700 cu.ft. of air space, equivalent to about 150-200 sq. ft. of floor area.

Harris Engineering Co. Ltd. have recently introduced a range of newly styled gas-fired unit heaters, based on the well-known Harris design. The range includes both flued and unflued models and one of the new features is the fitting of a new type of adjustable louvres.

Another new Harris product which made its appearance at the exhibition was the Harris horizontal gas-fired unit heater, which is based on the previous design, with the addition of a multi-blade centrifugal fan. The unit is thus especially suitable for use in connection with duct work systems, particularly in places where the source of heat has to be outside the space to be heated.

Although the range of DRUgasar balanced flue gas heaters on the F. A. Borchardt Ltd. stand showed no new developments, the Company was showing a suggested arrangement for installing one of these heaters in a below-stairs space or similar setting.

One of the factors which has made gas such a popular heating source for both the home and in industry is its flexibility and ease of control by the latest instrumentation devices. Many ingenious and effective control systems and devices for use in connection with gas-fired equipment were shown at Olympia and it is impossible to do justice to the wide range of equipment on offer.

Industrial controls

Brief reference must be made to one or two of the exhibits, however, including the display of electronic, electric and pneumatic controls on the stand of Honeywell Controls Ltd.

This Company's products are very well-known in the industrial control field, which was not represented at the exhibition. The main interest centred on the new Adatrol gas manifold system for the domestic consumer. The outstanding feature of this system of gas heating controls is its compact construction and the incorporation of all the relevant components in one unit.

The Adatrol system can be applied to all domestic requirements, giving great flexibility in heating requirements and complete safety in operation.

A particularly interesting exhibit on the Perl Controls Ltd. stand was the new Perlomatic 99, a striking addition to this Company's wide range of heating controls for all duties.

Compact unit

Designed to control gas burners in warm-air heating units, central heating boilers and other gas-fired appliances, the Perlomatic 99 incorporates in one compact unit automatic ignition and flame protection and houses the pilot and main gas valves.

It is only necessary to flick the switch to start the cycle of operation, which is 100% safe. In the event of interruption or failure of the supply, safety conditions are established instantly and the complete ignition cycle is automatically repeated when the supply is restored.

Installation is simple and maintenance has been reduced to the minimum. It is claimed that many leading manufacturers of gas-fired boilers, warm-air heaters and similar appliances have already decided to make the Perlomatic 99 their standard control unit. The unit has been in pilot production for some time and full-scale production is expected to commence early in 1962.

Some of the control and instrumentation equipment on show related to the use of gas in industrial applications, such as the boiler control instruments shown by Electroflo Meters Co. Ltd.

The British Rototherm Co. Ltd. showed examples from their range of mercury-in-steel recorders which are widely used in gasworks in different parts of the country.

This Company has also introduced a spring-fitting pipe surface thermometer, for either horizontal or vertical pipes, which has been designed with the domestic market in mind.

Teddington Industrial Equipment Ltd., presented their

Type DAO recycling control, for use with all small and medium-sized industrial burners. This unit operates in conjunction with a photo-cell and the use of printed circuitry promotes reliability and economy. Complete safety under all circumstances is assured.

Generally speaking, the exhibition concentrated on domestic, commercial and space heating, but some firms took the opportunity to show some of their industrial process heating equipment. Parkinson Cowan, for example, showed a gas-fired infra-red oven arranged for paint stoving or for drying or curing applications.

Barlow-Whitney Ltd. showed a wide selection of their process heating equipment, including the auto-controlled, B-W heavy-duty gas-fired box furnace, which was shown for the first time.

Gas burners of various types could be seen on the stands of companies specialising in this equipment. The Barlow-Whitney range of circular and slot discharge air blast tunnel burners is one example.

It was an interesting experience to visit the stands of firms whose products can be regarded as ancillary to the gas industry. A good example is the Le Bas Tube Company Ltd., distributors of the very well-known range of GF malleable iron fittings, which are used for pipe sizes from ¼-in. to 6-in. The Company also undertakes the fabrication and erection of any kind of main and auxiliary pipework.

Fans of different types are widely used in gas-fired installations where hot air has to be recirculated and the products of combustion withdrawn. Keith Blackman Ltd. are well-known in this field, and one of their exhibits was the new Keith Blackman AX-CENT compound flow, bifurcated fan which combines the advantages of the basic axial and centrifugal types. The fan is considered to be particularly suitable for applications where the axial fan configuration is required to give high pressures at an acceptable sound level.

This compact unit—the Perlomatic 99—gives automatic ignition and starts a completely safe cycle of operations at the mere flick of a switch. It will become standard equipment on many gas-fired boilers.

Another interesting exhibit was the new range of pivoted disc valves shown by B.W. Valve Co. Ltd. (Charles Winn & Co.). Excellent results are claimed for these valves which have obvious applications in the gas industry.

Among many other firms which showed products of interest to gas-fired heating equipment mention can be made of Peglers Ltd. Valves, cocks and joints of all kinds were shown. Pulsometer Pumps Ltd., exhibited the Perfecta NCP 2-50 glandless circulator for small-bore heating systems.

THE INSTITUTION and Junior Associations

'Change to survive'

IN his Presidential Address to the London and Southern Juniors, Mr. C. H. Townsend, Station Engineer at Wandsworth, pointed out that the events of the last ten years showed how the need of the gas industry to change to survive had continued. The first obvious change in manufacture was the very remarkable concentration of manufacture in a small number of relatively large works.

This had improved the general standard of fuel efficiency, both by eliminating old and relatively inefficient plant and also by making it easier to provide qualified staff to supervise its operation. It had permitted the use of larger units of plant with resultant economy of capital, operating labour and maintenance. It was also remarkable for the change in proportions of base load, seasonal load and peak load plants, although the optimum proportions have still not been reached. It had been a period of great and continuing increase in price of our primary raw material, coal.

Those with continuous vertical retorts, he pointed out, had benefited from the accent on coke for domestic purposes. In many cases they had been able to obtain a premium price for Gloco with comparatively little change in operating procedure. Others had gone over to Cleanglow production by accelerated carbonisation of specially chosen low rank coals.

Oil and oil products had become relatively cheaper in relation to coal in those ten years, so it was not surprising that many new methods had been developed and applied for making gas direct from oil or oil products, including refinery gases.

A further development had been the increasing availability of the liquid petroleum gases, butane and propane, of which the industry had not been slow to make use.

The development at East Greenwich was an ideal example of the concentration of manufacture mentioned earlier. It was also almost certainly the last major works to be developed on traditional lines.

At this works although the net materials costs for coal gas had only risen 69%, the price of coal carbonised had risen 82% and the net price received for coke by 89%. This indicated the improved performance of the new carbonising plant, particularly the low producer gas plant fuel consumption.

Diluent gases such as producer gas were now expensive, and the time would come when it would pay to increase calorific value.

Twelfth Gas Council annual report shows £2,039,124 Surplus

SPACE HEATING BOOSTS DOMESTIC DEMAND

GAS sales were a record during the period covered by the twelfth annual report of the Gas Council, 1960-61, increasing by nearly 3% over the previous year. The industry had a surplus of £2,039,124 against a deficit of £2,376,521 in the previous year, on a gross income of £401.9 mill. (£389.1 mill.). Eight boards had surpluses and four had deficits.

In the domestic market the improvement is due to the growing popularity of gas for space heating, and industrial and commercial sales were both up by more than 4%.

The future expansion of the industry, the report suggests, depends upon its achieving a wide degree of operational flexibility (particularly in its choice of raw materials), and its ability to keep the price of gas production down by the introduction of new and cheaper methods of manufacture.

The report, with those of the twelve boards, was issued this week.

It shows also that £28,758,410 (£27,425,574) was charged for depreciation and amounts written off and £24,647,580 (£22,956,873) for interest.

NEWS SUPPLEMENT

SALES INCOME

Total income from gas sales was £236.8 mill. (£224.9 mill.), from coke and breeze sales £85.3 mill. (£80.2 mill.), from other products £20.9 mill. (£20.8 mill.), from sale of appliances £40.8 mill. (£45.4 mill.) and from other sources £18.1 mill. (£17.8 mill.).

Capital investment in 1960-61 was £43.3 mill., of which £15.4 mill. was spent on manufacturing plant and £10.3 mill. on mains.

The Council has submitted to the Minister of Power proposals for the importation of about 350 mill. therms of liquefied natural gas a year from the Hassi R'Mel gas field in Algeria.

The scheme would provide rich gas at a high degree of purity, and at an economic price, suitable for enriching gas made from low grade coal by the Lurgi process.

PERSONNEL

The number of persons employed in the industry on March 31, 1961, was 124,443 (126,970). The reduction is due to continued integration of production and distribution, and more centralised administration. Recruitment difficulties have been experienced in certain districts.

Agreed wage and salary increases for most employees and a reduction in the working week were estimated to cost the industry £9 mill. in a full year. Equal pay for male and female staff employees has become fully operative.

Total gas available was 2,889.5 mill. therms (2,821.0 mill.). Of this 77.1% was manufactured—59.0% coal gas, 14.4% water gas and 3.7% oil gas and other gases; purchases from coke ovens were 17.6%, and from oil refineries 5.3%.

There was a slight reduction in the amount of gas made at works, but an increase in the amount of gas purchased.

Coal used during the year totalled 22.0 mill. tons (22.3 mill.). In order to produce high quality coke, area boards have been as selective as possible in their purchases of coal.

The increase in coal prices on September 19, 1960, averaged 6s. 10d. a ton to area boards, representing an increased cost to the industry of £17½ mill. in a full year.

Oil gas made amounted to 82 mill. therms, including the output from 7 mill. therms of refinery gas, an increase of 6 mill. therms over the previous year. In addition 22 mill. therms of liquefied petroleum gas was taken into supply.

Gas purchased from coke ovens totalled 509 mill. therms (477 mill.) and from oil refineries 117 mill. therms (31 mill.).

Coke production during the year was 9.7 mill. tons (9.9 mill.) and breeze 2.4 mill. tons (2.5 mill.). Coke sales totalled 8.6 mill. tons (8.4 mill.) and breeze 1.9 mill. tons (1.9 mill.).

Gas consumers on March 31, 1961, numbered 12,831,707 (12,882,856), of whom 12,100,237 (12,145,498) were domestic consumers.

2.9% INCREASE

Sales of gas totalled 2,665 mill. therms (2,591 mill.), an increase of 2.9%, all boards but one showing higher sales. About 48½% of sales were to domestic consumers, nearly 32% to industrial consumers and over 15% to commercial users.

The average income per therm of gas sold was 21.32d. (20.83d.).

Sales to domestic consumers increased by nearly 2%, to industrial consumers by 4% and to commercial users by more than 5%.

WARM AIR UNITS

There was an encouraging level of sales of warm air units and central heating appliances and, throughout the year, the rate of sales was about double that of 1959-60.

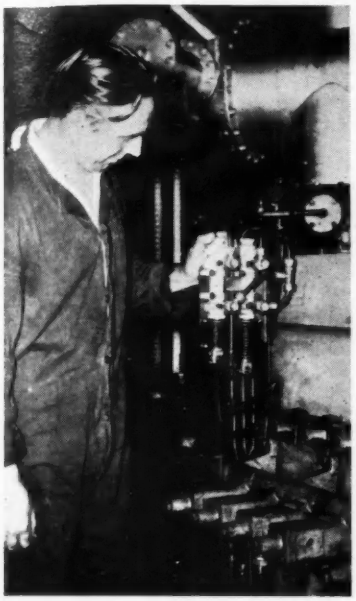
Some 8,000 warm air units and 18,000 central heating appliances were installed during the year.

Eleven boards increased the price of gas in their areas during 1960-61, and the West Midlands Board introduced a new two-part tariff.

FINANCIAL RESULTS AT A GLANCE

		£
SURPLUS	**Scottish**	**633,696**
	North Western	**210,164**
	East Midlands	**376,029**
	West Midlands	**680,187**
	Wales	**50,744**
	North Thames	**637,159**
	Southern	**236,908**
	South Western	**230,191**
DEFICIT	**Northern**	**58,884**
	North Eastern	**228,624**
	Eastern	**268,417**
	South Eastern	**460,029**
	Total	**2,039,124**

Award for South Eastern Board fitter



Mr. F. C. Brown

THE first South Eastern Gas Board employee to receive an award under the National Suggestions Scheme, sponsored by the Gas Council, is Mr. F. C. Brown, leading hand and maintenance fitter, water gas plant, Sydenham.

It was his idea to provide a safety locking device on the hydraulic plant so that one valve could not be in a dangerous position at any time.

This suggestion was accepted by the Board in April, 1960, and Mr. Brown received £10.

A few months later he received another £10 as a supplementary award and from the Gas Council he has now received £20.

Since the Board's Suggestion Scheme came into being in January, 1955, some 633 suggestions have been received and of these 254 received awards totalling £1,880 10s., while £270 has been paid out for Supplementary Awards.

LEAK BLAZES

WHEN a gas leak at the base of the Paisley gasholder ignited, flames shot 20 ft. up the side. Firemen fought the outbreak for almost an hour before getting it under control.

The gasholder contained more than 300,000 cu. ft. of gas when the fire started.

Patios, privacy and gas warmed-air for army

A NEW War Office housing development in Aldershot incorporating gas-fired warm-air heating will demonstrate that married quarters for today's Regulars conform to the very highest standards of comfort. The new 'estate' is being built on the old Talavera and Waterloo Barracks West sites.

The scheme includes 128 maisonettes and 170 patio houses. An open treatment is retained between the maisonette blocks by grassed areas and some magnificent old trees which are to remain.

In contrast to these blocks, the patio units will form a chequer board layout where large courts have been designed with children's play areas, and with seating in an intricate pattern of paving, gardens and lawns.

Both types of housing will enjoy gas-fired warm-air heating.

ACCOMMODATION

The maisonettes consist of living room and kitchen, divided by a glass screen, on one floor, with two bedrooms and a bathroom over, reached by stairs from the living room.

The patio houses are in groups of ten, comprising eight L-shaped, three-bedroomed dwellings, with two rectangular two-bedroomed ones.

There are 136 three-bedroomed patio houses containing on the ground floor a combined dining and living area, in every case facing due south onto the patio gardens.

The remaining 34 two-bedroomed patio houses have a ground floor consisting of a dining kitchen facing the main courts and a lounge facing onto the patio garden. Bedrooms and bathroom are on the first floor.

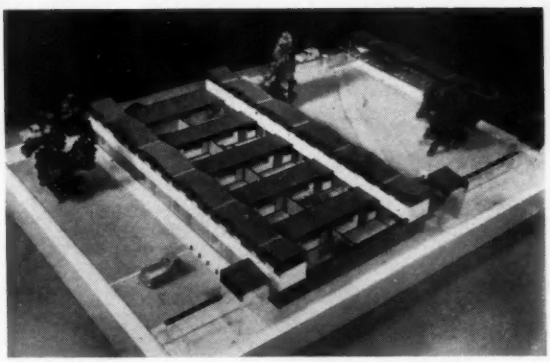
PRIVACY

Garages close to the group at the two-bedroomed end and the houses have been designed in such a way as to give complete privacy to the patio itself.

The heating is by ducted warm air. All the dwellings except the 34 two-bedroomed patio houses will be fitted with Ductair 23 units, and the 34 others will have Halycon P.45 units.

The occupants will also have gas for cooking and a gas-heated home laundry appliance. The NAAFI shop will have a gas-fired central heating system.

This extensive gas installation is being supervised by the Reading Region of the Southern Gas Board, whose Sales Manager, Mr. J. Wyss, worked out the scheme with the architects and appropriate officials of the War Office.



An impression of a group of ten patio houses and their attractive gardens at the Talavera and Waterloo Barracks West, Aldershot.

THE HEAP OF THE MOMENT

THERE is a 60-ft. high heap of Cleanglow, the solid smokeless fuel, at the St. Albans Works of the Eastern Gas Board in readiness for the winter demand. It is increasing every day so that in a little while it will go up to 80 ft., says 'E.G. News,' a monthly publication for employees of the Eastern Gas Board.

Mr. C. A. Deas, Area Coke Manager, says: 'Given anything like a normal winter all this Cleanglow will find a ready sale.'

Stocking is done by forming a ramp from the fuel itself. Loaded vehicles travel to the top and discharge their contents over the edge. As the heap grows the ramp is automatically extended, thus enabling the fuel to be stacked to a steadily increasing height.

The amount of breeze produced by this method of stacking is probably less than that formed in the more conventional method of stacking by conveyor.

Big News!

Stainless Steel and the revolutionary Sola Grill!

NEW

44 GAS COOKER

Exclusive Eye-Level SOLA Grill—The only grill which provides all-over even heat distribution, at Super, Fast or Normal tap setting. A tremendous advance —restaurant results from a domestic grill. Incorporates a new-design radiant burner.

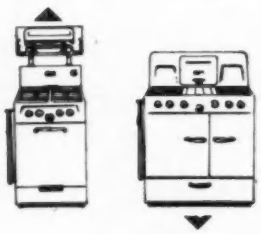
Four Stainless Steel Radaline Burners — with automatic lighting. Safety control taps with built-in low flame position.

Stainless Steel Removable Pan Rests form smooth working surface over which pans will slide easily and safely without lifting. Spilt liquids held in deep, easily-cleaned bowl.

Roomy, Quick-Heating Oven. Regulo is combined with oven tap—gas is turned on as Regulo is set. New pattern bright plated oven grid shelves. Impossible as it may sound—an even better than usual NEW WORLD performance.

New Removable Oven Top slides out in a second for easy cleaning.

Large Storage Drawer glides smoothly and silently on special nylon runners.



173 GAS COOKER

A brand-new development of the popular Rangette featuring the exclusive NEW WORLD *use of stainless steel. The 173 hotplate is similar to that of the 44, with stainless steel removable pan rests, four new Radaline 'fin-shaped' automatic-lighting burners, and safety control taps with built-in low flame position.*

Other useful features include:

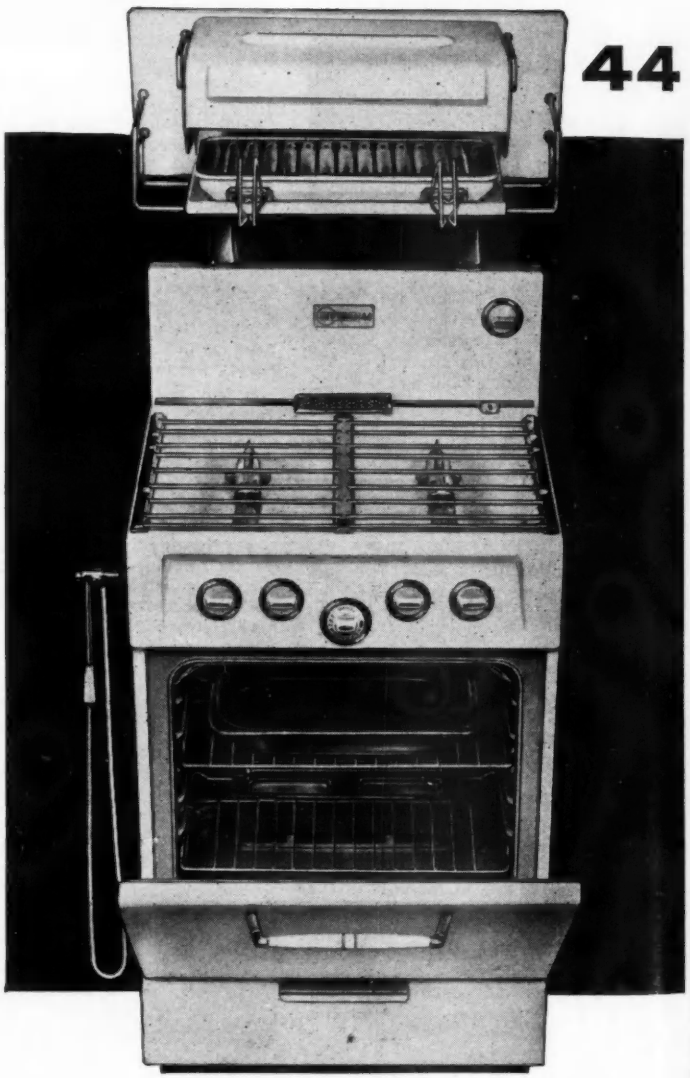
Automatic-lighting Comfort Level Grill folds away for extra working space. Grill pan rests on easily removed stainless steel grid over easy-to-clean spillage well.

Roomy Quick-Heating Oven with the famous Regulo control.

Warming Chamber for plate warming or keeping food hot. Special non-tilting shelf opens out to hold plates upright.

Large Storage Compartment with drop door.

Chromium-plated press-button door handles.



Radiation Domestic Appliance Centre, 58-65 Baker Street, London, W1

Introduced at this year's Ideal Home Exhibition, these two bright newcomers from NEW WORLD *attracted tremendous interest and thousands of enquiries from Press and Public. The extensive use of hygienic, durable stainless steel, together with other outstanding new features, put them years ahead of any rivals.*

WORLD

AND 173 GAS COOKERS

For postal enquiries please write to the Head Office : Radiation New World Limited, Radiation House, North Circular Road, London, NW10. Telephone : WILlesden 1234

NEW WORLD

A Radiation PRODUCT

Gas industry first aid contest successes

THE Scottish Gas Board women's team won for the second year running the industry's national first aid competitions, held recently in London. The winning men's team was the East Midlands Gas Board team from Derby. Both teams have won this distinction before—the Scots in 1958 and 1960 and the East Midlands in 1959.

The runners-up for both men's and women's teams were from the North Western Gas Board and they, too, have both won the trophies in earlier events.

In third place were the South Eastern Gas Board (men) and the Southern Gas Board (women).

The teams underwent two tests—team and individual, and the total possible score was 400—200 for each test.

WINNING SMILES

Captains of the winning teams in the First Aid competitions—Mr. T. Johnson (East Midlands men) and Miss Margaret Carrie (Scottish women), with trophies.

FULL RESULTS

The full results in the men's event with individual, team and total points were: 1, East Midlands Gas Board 185, 168, 353. 2, North Western Gas Board 160, 163, 323. 3, South Eastern Gas Board 158, 160, 318. 4, North Eastern Gas Board 177, 129, 306. 5, West Midlands Gas Board, 167, 139, 306. 6, Scottish Gas Board 162, 143, 305. 7, North Thames Gas Board 167, 136, 303. 8, Eastern Gas Board 161, 141, 302. 9, South Western Gas Board 158, 133, 291. 10, Southern Gas Board 150, 138, 288. 11, Northern Gas Board 160, 121, 281. 12, Wales Gas Board 130, 134, 264.

Women: 1, Scottish Gas Board 158, 161, 319. 2, North Western Gas Board 154, 150, 304. 3, Southern Gas Board 169, 128, 297. 4, South Western Gas Board 170, 121, 291. 5, West Midlands Gas Board 153, 127, 280. 6, East Midlands Gas Board 143, 131, 274. 7, North Eastern Gas Board 135, 134, 269.

PRESENTATION

Sir Henry Jones, Chairman of the Gas Council, presented the trophies and plaques. He stressed the importance of having experienced first aiders in the industry, especially in view of the rise in the incidence of industrial accidents.

He wished the teams good luck in the forthcoming Grand Prior's Trophy Competitions at the Porchester Halls, London, on November 16, when they will represent the gas industry. On this occasion the teams will compete against the winners of the other national competitions.

Members of the winning teams were:

East Midlands Gas Board (men): T. Johnson, (Captain), C. Collier, E. Stone, H. Kerslake, E. Mylemans (reserve).

Scottish Gas Board (women): Miss M. Currie, (captain), Miss May Brodie, Miss C. C. MacKenzie, Miss S. H. Ballantyne, Mrs. E. Gilchrist, (reserve).

NEW SALES OFFICE

THREE sales divisions of Allied Ironfounders Ltd.—the Domestic Appliance Division, the Bath Division and the Electrical Appliance Division—moved into a new building in Cadbury Road, Sunbury-on-Thames, Middlesex, on Monday September 25.

Among the senior Allied staff who moved to Sunbury are: Mr. C. Insch, Mr. L. J. Sinden, Mr. K. F. Stone, Mr. A. M. McKillop and Mr. C. Wright, of the Domestic Appliance Division; Mr. F. M. Jones, of the Bath Division; and Mr. J. W. Penman Brown, of the Electrical Appliance Division.

Allied Ironfounders' main London headquarters and showroom remain at 28 Brook Street; the offices in Orchard House have been given up; and those at 18 Dering Street will continue to house the Catering Equipment Division and Export Department, for which increased accommodation will now be available.

The telephone number of all departments at Sunbury is Sunbury-on-Thames 5577.

Chief Engineer retires

Dr. R. S. Edwards (left), Chairman of the North Eastern Gas Board, presents Mr. Harry Johnston with a 42-piece set of cut-glass wine glasses to mark his retirement after 45 years in the gas industry. A Board member, he had been Chief Engineer since vesting date.

SCOTS SEE GAS FOR MODERN HOMES

A COMPLETE range of domestic gas appliances was on display on four stands at the Modern Homes Exhibition 1961 which opened in the Kelvin Hall, Glasgow, last week.

The main Scottish Gas Board stand featured types of kitchen appliances, including cookers, refrigerators, washing machines and drying cabinets, and the latest room heaters and radiators. On this stand, the Board's home service advisers demonstrated domestic laundry appliances.

Another stand displayed small bore and warm air central heating by gas. This stand was shared by the manufacturers of Ascot water heaters. Thomas Potterton Ltd. had their own stand to display Diplomat gas-fired boilers.

The fourth stand was taken by the Glasgow firm of Gas Rentals Ltd. for a display of the domestic gas appliances which they hire out.

THE MAJORITY SAID: 'GAS'

TENANTS of pre-war council houses on the St. Mary's Estate, Market Harborough, have a definite preference for gas heaters for water heating, the Market Harborough (Leics.) Urban District Council has discovered.

The Council enquired which type of heater the tenants would prefer to have for hot water systems to be installed in the houses, and there were 52 requests for gas heaters and 35 for electric heaters.

171 qualify for service awards

THIS year 171 employees have qualified under the Scottish Gas Board's long service award scheme for 40 and 25 years' service.

Last week six employees with 40 years' service and 30 with 25 years' service in the Edinburgh and South-Eastern Division received presentations from Mr. Sydney Smith, C.B.E., the Chairman of the Board.

Similar presentations will be made to 28 employees with 40 years' service and 62 with 25 years' in the Glasgow and Western Division on October 12.

Presentations to ten employees with 40 years' service and 35 with 25 years' service in the Central and Northern Division will be made in Dundee on October 24.

Croydon gasfitter to broadcast

A CROYDON District apprentice gasfitter, Peter Robert Green, age 17, has been selected to take part in a B.B.C. broadcast to schools, when a number of apprentices will be discussing training. The programme, one of the 'World at Work' series, will be broadcast on November 13, at 11.20 a.m.

Peter attended a preliminary talk session at the B.B.C. on September 20 and will have a final rehearsal and recording on November 1.

A former pupil of Lanfranc Secondary School, Peter enjoys swimming and motorcycling. He has also been selected to take part in an Outward Bound Course at Aberdovey, on the Welsh coast, in December.

£2.6 mill. 'first-half' N.C.B. surplus, but . . .

ALTHOUGH the National Coal Board finished the first half of this year with a surplus of £2.6 mill., another deficit is expected to be shown when the final figures for 1961 become available, says the *Financial Times* industrial correspondent.

The January-June surplus compares with a deficit of £6.9 mill. in the first half of 1960, and a surplus of about £1 mill. over the same period of 1959.

But the second half returns for the last two years each showed a substantial deficit—of £14 mill. in 1960, and of £25 mill. in 1959.

Some of the benefits gained from the last rise in coal charges have been offset by the January wage increases, which will total about £15 mill. in a full year.

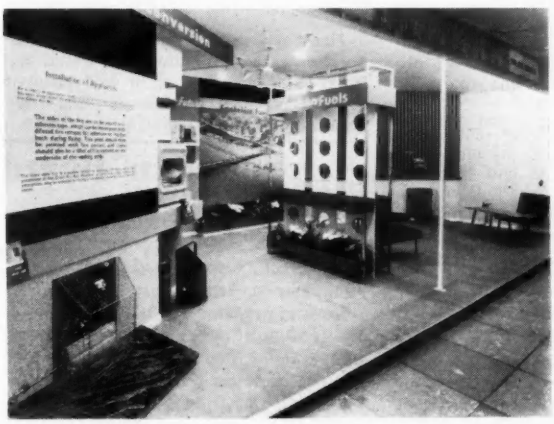
A statement by the Board shows that there was a deficit, after payment of interest, of nearly £6.3 mill. in the second quarter of this year. This eradicated nearly three-quarters of the £8.9 mill. surplus earned in the first quarter, says the correspondent.

South Australian Gas: Profit rises

THE South Australian Gas Company made a net profit for the year ended June 30, 1961, of £113,211 against £110,077 in the previous year.

The dividend for the year is 6%, absorbing £29,294, comprising a 3% interim dividend and a 3% final dividend. £50,000 is transferred to plant repairs equalisation provision.

The balance transferred to the profit and loss appropriation account is £33,917 against £80,783, and undistributed profits are £407,285 against £326,502.



A general view of the Gas Council's coke stand at the Public Health Inspectors' Conference at Bournemouth showing some of the appliances which can be used in smokeless zones.

Board takes phone orders at any hour of day or night

CUSTOMERS in the South London boroughs, the whole of Surrey and North-west Kent can now order Sebrite or coke from the South Eastern Gas Board at any hour of the day or night—even at 4 o'clock in the morning, if they wish. Orders may also be placed at local showrooms or supply offices during normal working hours.

Automatic telephone answering machines have been installed at the Board's Old Kent Road offices, connected to the Coke Department PBX switchboard (NEW Cross 2060).

These machines are brought into use from 5.15 p.m. to 8.0 a.m on weekdays, and at weekends from 12.15 p.m. Saturday to 8.0 a.m. Monday.

In rush periods during normal working hours orders are recorded both manually and through the tape recording machines.

BY MACHINE

Telephone orders and messages can now be received at any time of the day or night. Customers telephoning after normal working hours are automatically connected to the machine and a pre-recorded message is spoken to them, explaining that they are connected and asking them to give their names, addresses and telephone numbers and to give their orders or messages.

The following day their messages are transcribed manually and receive attention.

Consideration will be given later to extending the use of these machines in other parts of the Board's area.

More areas will go smokeless

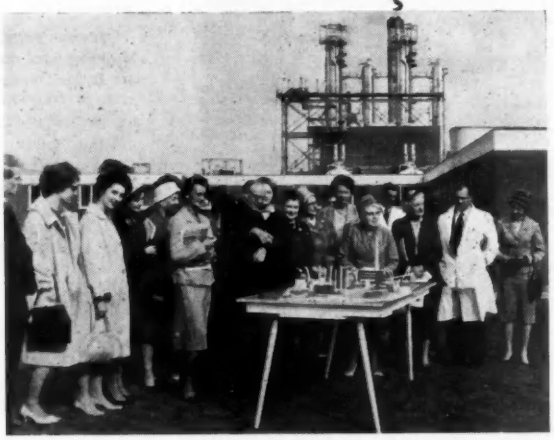
THE latest smoke control order of Aireborough Urban Council came into operation on Sunday, October 1, in the Hillside district of Guiseley.

Already there are several smokeless districts in the urban area, notably the Shaw Lane housing estate, Guiseley, the Greenacre Park estate and part of Micklefield Lane, Rawdon.

Another order has been made for Upper Tranmere Park, to become effective on July 1 next year, and the local Health Department is carrying out a survey with the object of making the whole of Tranmere Park smokeless, but it will probably be another two years before an order is given effect.

According to an Aireborough official they have still a long way to go before Aireborough is fully smokeless. Householders were being warned well in advance so that their stocks of coal would be exhausted and arrangements made for the change-over to smokeless fuel.

WOMEN SEE FIRST U.K. LURGI PLANT



SCOTS women journalists and representatives of women's organisations toured the Scottish Gas Board's Lurgi complete - gasification plant at Westfield, Fife, recently. The plant, which is the first in Britain, was opened by the Queen on June 27, 1961. It cost £6,600,000, and is designed to produce 30 mill. cu.ft. of gas a day, an amount eauivalent to one-fifth of the present total demand for gas in Scotland. In the accompanying picture, Mr. Sydney Smith, C.B.E., Chairman of the Board, who was their host at a luncheon, explains the layout of the plant on a model. Miss Ruth Warrander, the Board's public relations assistant (women's affairs) is on the extreme right.

COAL FIRES MUST CEASE

THE Edinburgh Town Council has ordered that there must be an immediate end to the burning of coal fires in the Sighthill area of the city, a smokeless zone.

Conversion work on 102 houses for gas fires is to start at once, and other houses are to be inspected as soon as possible. Approval for the work—which will cost £1,051—has been given by Edinburgh Corporation Health Committee.

The Committee was told that originally 382 house proprietors had not complied with notices under the Clean Air Act. The amended list now totalled 185.

The Committee heard that the Corporation's share of the cost would be £315. The remaining £736 was recoverable from the proprietors and the Exchequer.

CALOR GAS DEVELOPMENT

SALES of Calor gas and equipment for use in rural homes and caravans for cooking, heating, hot water supply, refrigerators and gas pokers, and outside for picnic sets, blow torches, stationary engines, drying and other purposes, continue to make steady progress, reports Commander Colin Buist, C.V.O., R.N., Chairman of Calor Gas Holding Co. Ltd., in his statement with the report and accounts for the year ended March 31, 1961, quoted in the *Financial Times*.

He says: 'Considerable development has taken place in connection with the expansion of our service for the supply of Calor gas as a fuel for industrial purposes'.

Southern Board Service awards

THE Chairman of the Southern Gas Board, Mr. A. F. Hetherington, has presented long service awards to men and women of the Board's Dorset and Bournemouth Region.

Similar presentations are being held in Reading, Southampton and Portsmouth, and a total of 132 employees are receiving certificates for 25 years' service and 51 are receiving awards of watches or clocks for 40 years' service.

Mr. Hetherington said: 'In this Board we lay great emphasis on training and we have devoted a great deal of effort to formal training of various sorts, but nonetheless the Board fully recognises that nothing can replace the accumulated know-how of its long service, and that you are all, in your daily jobs, contributing to the training of younger employees by showing them the best way of doing a job and answering their questions.'

CORRESPONDENCE

SCOTS NAME CHANGE

Dear Sir,

In your issue of September 27 I read with interest the change of name of the Scottish Association of Gas Managers to the Scottish Section of the Institution of Gas Engineers at the centenary meeting in Edinburgh, and particularly your editorial entitled 'An historic Scottish meeting.'

At the 68th annual meeting of the then North British Association of Gas Managers, held in St. Andrews in September, 1929, my late father, J. W. Napier, of Alloa, was President and proposed from the Chair 'that the Association in future be called "The Institution of Gas Engineers of Scotland".'

A large majority voted for no change. The discussion recorded in the proceedings is most illuminating. I was present at that St. Andrews meeting and well remember not only the disappointment of my father at the members' reaction but, indeed, his anger; my mother pleaded with him to be patient, and said the time would come. How right she was.

I like to think that the ghost of my father—who was before his time in many things—may have been present in the Music Hall in Edinburgh this September at the centenary meeting, and he would certainly have recalled that it was in that very building nearly a century and a half ago that Sir Walter Scott, who published the first of the Waverley Novels anonymously, acknowledged that he was indeed the author.

I wonder how many survive in the industry today who remember that St. Andrews meeting and how they voted?

I am, dear Sir,
Yours truly,
J. WATSON NAPIER.

Purdis Rise,
Purdis Heath,
Ipswich.

[I, one of quite a number, vividly recollect that meeting at St. Andrews. First I recall my surprise and interest at the virility of the manner in which Scot after Scot spoke against the proposal of their leader. Secondly, I can still hear the acid tone in which Mr. Napier, pale with mortification, announced: 'And now, gentlemen, that we are once again a 'District' Association, I will call for the next business.' May I add (and his son will forgive me) that my personal relationship with Mr. Napier was never quite the same after that meeting? For as he stood in full fig ready to receive the guests at the reception, he looked out from the window of the Grand Hotel and saw, putting on the 18th green of the Old Coupe, my wife, myself and one who was soon to follow him in office, who is now one of the Patriarchs of the 'N.B.' and who will much enjoy this correspondence.—Clifford King, 11, Bolt Court, London, E.C.4.]

ELECTRICALLY INSULATING PIPE JOINTS

Dear Sir,

Mr. Peter Sherwood's interesting article on 'Cathodic protection for underground pipelines,' in your issue of September 20, reflects the present wide interest in electrolytic corrosion, and it is therefore appropriate to draw attention to the important part played in cathodically protected systems by insulating joints, such as the Prochind joint, which was advertised in the same issue.

Protective currents must be restricted to those parts of the pipe system where they are needed, and the flow of harmful currents must be impeded.

In the past, such joints have usually consisted of improvised insulation inserted in flanged joints in the pipe, but they need frequent attention to maintain their efficiency.

Cases are on record of deposits of rust in the pipe 'bridging' such joints and the current in the pipe being so high as to raise the rust deposit to incandescence, followed by complete burning out of the insulating material.

The introduction of a prefabricated, internally lined, insulating joint of high mechanical strength therefore seems timely.

Yours faithfully,
J. BRIAN W. BIRKS,
Managing Director,
Abbott, Birks & Co., Ltd.,
London, S.E.1.

COMING EVENTS

October 18.—I.G.E., SOUTH WESTERN SECTION: Demonstration Theatre, Radiant House, Bristol. Annual general meeting. 12.15 p.m.

October 21. — MANCHESTER DISTRICT JUNIORS: Manchester. Annual general meeting. 2 p.m.

To mark his retirement Mr. Alexander McGowan, of South Shields, chief engineer of the collier 'Brixton,' has been presented with a transistor radio by his many friends in the South Eastern Gas Board. The presentation was made by Capt. H. G. N. D'Evelin, until recently master of the 'Brixton' and now in command of the 'Chessington.'

Mr. McGowan served with a number of shipping companies before joining the Wandsworth and District Gas Co.

PERSONAL NOTES

MR. B. G. H. CLEGG has been appointed Commercial Manager and MR. G. G. WARNE, Distribution Engineer, to the Southern Gas Board. Their appointments follow the departure of MR. W. H. ELKERTON and MR. F. BELL, formerly commercial manager and distribution engineer respectively, to new posts in the

Mr. Clegg

Mr. Warne

West Midlands Gas Board. Mr. Clegg, 39, came to the Southern Gas Board in 1956 and has since held the appointments of market and operational research manager and deputy commercial manager. Mr. Warne has been deputy distribution engineer to the Board since 1959. He is past president of the London and Southern District Junior Gas Association and has been chairman of the British Junior Gas Association.

MR. W. A. CAMPBELL, principal administrative and technical officer in the Belfast Corporation Gas Department has been appointed Deputy City Gas Engineer and Manager. Mr. Campbell's appointment follows the resignation of MR. A. ROBIN who had been deputy engineer and manager with the Department since 1947.

MR. J. GADD, formerly regional distribution engineer in the Southern Gas Board's Wight and Portsmouth and Southampton Regions has been appointed Assistant Distribution Engineer. MR. D. J. BUTLER, formerly first technical assistant to the distribution engineer, is appointed to succeed Mr. Gadd as Regional Distribution Engineer.

MRS. M. E. COSSINS of Scarborough, COUNCILLOR T. GIBSON of North Ferriby, Yorkshire, COUNCILLOR A. HANSON, M.B.E., of Castleford, Yorkshire, and MR. J. C. M. OTTEN of Hull have been appointed members of the North Eastern Gas Consultative Council.

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